## b.) Amendments to the Claims

## Status Identifiers of the Claims

- 1. (Original)
- 2. (Original)
- 3. (Original)
- 4. (Original)
- 5. (Original)
- 6. (Original)
- 7. (Original)
- 8. (Withdrawn)
- 9. (Withdrawn)
- 10. (Original)
- 11. (Withdrawn)
- 12. (Withdrawn)
- 13. (Original)
- 14. (Original)

## **Listing of Claims**

- 1. (Original): A de novo synthesized plasmid comprising at least a replication origin and a selection marker gene wherein;
  - (a) the replication origin contains sequences relevant to autonomous plasmid replication in a host cell; and
  - (b) the selection marker gene contains sequences relevant to the selection of a plasmid in a host cell.
- 2. (Original): The plasmid according to claim 1, wherein the plasmid is not modified from the plasmid previously obtained from natural sources.

- 3. (Original): The plasmid according to claim 1, wherein the plasmid is not modified from the plasmid previously obtained from recombinant sources.
- 4. (Original): The plasmid according to claim 1, wherein the replication origin allows the autonomous plasmid replication in a host cell.
- 5. (Original): The plasmid according to claim 1, wherein the selection marker gene encodes a product indicative of plasmid maintenance in a host cell.
- 6. (Original): A method of preparing a de novo synthesized plasmid combined from at least two DNA fragments comprising:
  - (a) preparing a linear replication origin DNA fragment;
  - (b) preparing a linear selection marker gene DNA fragment;
  - (c) combining the DNA fragments prepared from steps (a) and (b) to form a circular de novo synthesized plasmid;
  - (d) introducing the plasmid made from step (c) into a host cell; and
  - (e) selecting the plasmid with appropriate replication origin and selection marker from transformed host cells.
- 7. (Original): The method according to claim 6, wherein any DNA fragment alone used for combining the de novo synthesized plasmid cannot confer both autonomous DNA replication and selection to a plasmid.
- 8. (Withdrawn)
- 9. (Withdrawn)

- 10. (Original): A method of using a de novo synthesized plasmid comprising:
  - (a) linearizing the de novo synthesized plasmid;
  - (b) inserting one or more functional DNA fragments to the linearized plasmid to make other plasmids;
  - (c) introducing the plasmids made from step (b) into host cells;
  - (d) selecting the plasmids and host cells with desired properties; and
  - (e) using the plasmids and host cells for biomedical applications.
- 11. (Withdrawn)
- 12. (Withdrawn)
- 13. (Original): The method according to claim 10, wherein the functional DNA fragments encode a promoter, a regulatory sequence, a ribosome binding site, restriction sites, a terminator, a polypeptide, a replication origin, and a selection marker gene.
- 14. (Original): The method according to claim 10, wherein the desired properties are plasmid replication, selection, and the properties added by functional DNA fragments inserted from step (b).
- 15. (Original): The method according to claim 10, wherein the biomedical applications are DNA cloning, DNA amplification, gene expression, gene therapy, and DNA immunization.